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Special Body on Least Developed, Landlocked Developing and Pacific Island Developing Countries: sustainable management of oceans for sustainable development and poverty eradication

Sustainable management of oceans and seas for sustainable development and poverty eradication in Pacific small island developing States

Note by the secretariat**

Summary

The present report is in response to Commission resolution 69/17 on sustainable management, conservation and use of ocean resources for the development of Asia-Pacific small island developing States. It provides an overview of how Pacific small island developing States can conserve, sustainably manage and realize the benefits of fisheries in support of sustainable development, including the identification of opportunities for strengthening fisheries' contribution to sustainable development. These opportunities may help in formulating how oceans are addressed in the setting and implementation of sustainable development goals. Recommendations on the manner in which the secretariat can support the sustainable management of oceans and seas are also provided.

The Commission may wish to review the present report and provide the secretariat with guidance on its recommendations and on any other matters concerning the sustainable management of oceans and seas for sustainable development and poverty eradication.

* E/ESCAP/70/L.1/Rev.1.

** The late submission of the present document is due to the rapid pace of change in the deliberations on sustainable development goals, including in the Open Working Group and Technical Support Team on Oceans and Seas. As the consideration of agenda item 2(b) at the seventieth session of the Commission has been delayed, the secretariat has endeavoured to ensure that this report remains as up to date as possible.

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I. The value of the ocean to Pacific island countries

1. In the outcome document of the United Nations Conference on Sustainable Development entitled "The future we want", the Heads of State and Government and high-level representatives stressed the importance of the "conservation and sustainable use of the oceans and seas and of their resources for sustainable development, including through their contributions to poverty eradication, sustained economic growth, food security and creation of sustainable livelihoods and decent work, while at the same time protecting biodiversity and the marine environment and addressing the impacts of climate change".[1] They also urged "the identification and mainstreaming by 2014 of strategies that further assist developing countries, in particular the least developed countries and small island developing States, in developing their national capacity to conserve, sustainably manage and realize the benefits of sustainable fisheries".[2]

2. The diverse habitats of the Pacific Ocean range from shallow coasts and islands with coral reefs, estuaries, seagrass and mangroves to deep slopes and seamounts. Some of these habitats host the highest diversity of marine organisms in the world. For example, the coral triangle (Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor-Leste) is recognized as a global centre of marine biodiversity, and is home to the highest coral diversity in the world. The Pacific Ocean also has the highest species richness of exploited species. These diverse marine ecosystems provide a variety of important ecosystem services, including "provisioning services", such as capture fisheries and aquaculture, "regulating services", such as coastal protection and carbon sequestration, and "cultural services", such as recreation, tourism, cultural identity and non-use values associated with the preservation of biological diversity.

3. Pacific island tourism is highly dependent on coastal resources and the quality of the coastal environment. A considerable number of tourists visit the subregion specifically for diving, surfing, sailing, sports fishing and whale watching. Revenues from all tourism in the Pacific is estimated to be more than twice as great as those generated from fishing, with the sector employing four times the number of people.

[1] General Assembly resolution 66/288, annex, para 158.

[2] Ibid., para. 174.

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4. Almost all Pacific island economies have a long heritage of attempting aquaculture development, with much of it occurring in marine areas. Fisheries and aquaculture interaction is on several levels. Frequently, aquaculture areas are closed to fishing. Some types of aquaculture, such as prawn farming, involve altering mangrove areas that serve as important fish nursery grounds. There have also been attempts to use aquaculture as a tool to relieve pressure on coastal fisheries. Some types of aquaculture involve harvesting fish larvae or juveniles in the wild and raising them in captivity.

5. Oceans are also used as assimilators of waste. This ranges from over-the-water latrines to pipelines that carry waste from urban areas to sites outside the reef. Ocean dumping occurs in the subregion, with an example being the sludge from canneries being disposed of outside territorial seas. The Food and Agriculture Organization of the United Nations (FAO) estimates that globally an average of 13,000 pieces of plastic litter are floating in every square kilometre of ocean.[3] Interactions involving the assimilation of waste with fisheries are usually negative, such as the reef disturbances caused by waste pipelines and the eutrophication of areas by raw sewage discharge, which results in harmful algal blooms.

6. The potential of deep seabed mining in the Pacific is becoming of significant interest to Governments as a possible source of income from ocean resources. Mining companies from such countries as Canada, China, Germany, India, Japan, the Republic of Korea, the Russian Federation and the United Kingdom of Great Britain and Northern Ireland have obtained seabed exploration licences covering 1 million sq km of the territorial waters of Pacific island countries.[4] Regional activities related to seabed mining are currently focused on maritime boundary delimitation, establishing the legal basis for managing the industry, efforts to generate subregional solidarity in dealing with the industry, education of national governments on the realities of the industry and encouraging the Pacific Islands Forum Leaders to pay particular attention to this industry. The environmental risks of seabed mining are poorly understood. Among them are the destruction of deep sea ecosystems, heavy metal contamination of migratory fish and sedimentation. As the regulatory environment of seabed mining within Pacific exclusive economic zones (EEZs) remains weak or non-existent, a precautionary approach towards promoting this activity is being advocated by ecologists, non-governmental organizations (NGOs) and community groups.

7. Fishing activities in the Pacific can be clearly divided into two very different types:

(a) Coastal: Operations that take place in lagoons, reefs or deep-slope or shallow sea areas. This category also includes fish caught by trolling/hand-lining from small vessels in the open sea adjacent to the islands;

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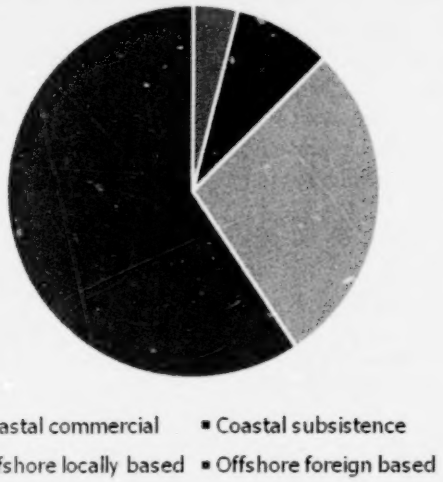
[3] United Nations Environment Programme and Food and Agriculture Organization of the United Nations, "Abandoned, lost or otherwise discarded fishing gear", UNEP Regional Seas Reports and Studies, No. 185; FAO Fisheries and Aquaculture Technical Paper, No. 523 (Rome, 2009). Available from www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_Abandoned_Lost_Fishing_Gear.pdf.

[4] Tina Hunter and Madeline Taylor, "Deep sea bed mining in the South Pacific: a background paper" (Centre for International Minerals and Energy Law, University of Queensland, 2013). Available from www.law.uq.edu.au/documents/cimel/Deep-Sea-Bed-Mining-in-the-South-Pacific.pdf.

(b) Offshore (sometimes called "oceanic"): Operations that take place in the deep sea, usually beyond territorial waters, and are undertaken almost exclusively by industrial-scale vessels.

Coastal fisheries and offshore fisheries in the subregion are considerably different from each other. The differences are, for example, in the sizes of vessels involved, the number of participants in the fishing, the degree of foreign involvement, the resources targeted, the management arrangements, the flow of benefits and the opportunities for expanding benefits.

Figure 1
Annual fishery production from the Pacific islands subregion



Source: Robert Gillett, *Fisheries in the Economies of the Pacific Island Countries and Territories* (Asian Development Bank, Mandaluyong City, Philippines, 2009). Available from www.ffa.int/system/files/Benefish%20Final%20as%20printed%20by%20ADB.pdf.

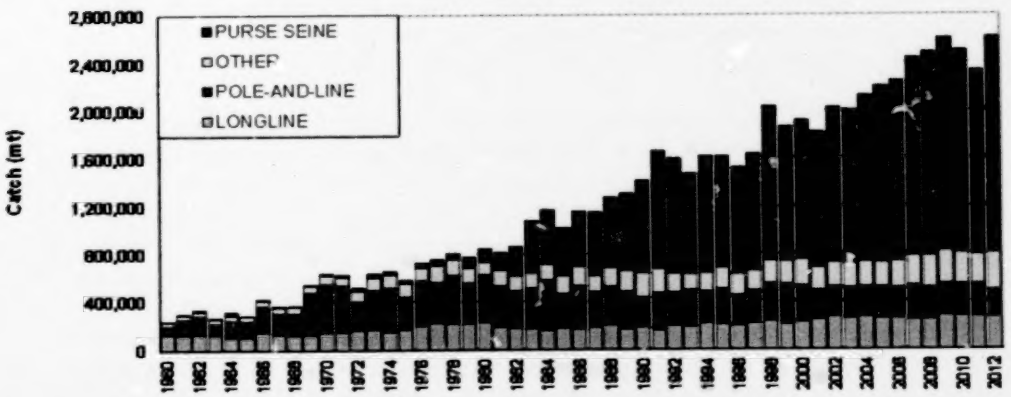
Note: Based on the year 2007 (the last year for which comparable data for coastal and offshore fisheries are available). The relative amounts are based on volume, namely metric tonnes.

8. Coastal fishing is of fundamental importance in the Pacific islands. Much of the subregion's nutrition, welfare, culture, employment and recreation are based on the living resources in the zone between the shoreline and the outer reefs of the subregion. The continuation of current lifestyles, opportunities for future development and food security are all highly dependent on coastal fisheries resources. Although dwarfed in both volume and value by the offshore tuna fisheries, the fisheries in the Pacific islands based on coastal resources provide most of the non-imported fish supplies to the subregion and hence play a crucial role in food security. In general, the coastal fishery resources are heavily fished and often show signs of over-exploitation, especially in areas close to population centres and for fishery products in demand by the rapidly growing Asian economies. Coastal fisheries resources are also exported, such as beche-de-mer and reef fish, for consumption and aquariums, which can create competing demand with local communities. The coastal fisheries are adversely affected by habitat degradation, which is the result of destructive fishing practices, urbanization, siltation from mining and logging and competing uses of the coastal zone, such as for tourism.

9. The offshore fishery resources of the western and central areas of the Pacific Ocean are tuna, billfish and allied species — and the bycatch obtained during the capture of those types of fish. These areas consist of an open-water pelagic habitat in which there are often extensive movements of individual fish. In 2012, about 2.5 million tonnes of tuna were caught in the waters of the western and central Pacific Ocean. Four species are of major commercial importance in the Pacific islands: skipjack (about 64 per cent of the total tuna catch in 2012), yellowfin (25 per cent), bigeye (6 per cent) and albacore (5 per cent). The amount of tuna captured in the area is about eight times the harvest of all coastal fish of the subregion combined. A total of 65 per cent of the world's commercial tuna comes from the Pacific. The average annual tuna catch in the western and central Pacific Ocean during the past 10 years is almost as much as the total annual tuna catches of the other major tuna fishing areas combined, namely catches in the Eastern Pacific, Indian and Atlantic oceans).[5]

10. Processing is an important part of tuna product flow. As loining and canning facilities are labour-intensive (employing up to 3,500 people at a single plant), many Pacific island countries have sought to attract such facilities. However, given the high costs of operating canneries, the profit margins are often slim. Access to the European Union has been a key determining feature of the relative success of canning operations in Fiji, Papua New Guinea and Solomon Islands. Many of the Pacific island economies that do not have tuna processing operations never see any of the fish caught in their waters or by the vessels that are licensed by those economies to catch them. A large proportion of Pacific tuna is transhipped to Bangkok for canning for the European Union and the United States of America.

Figure 2
Pacific tuna catch by fishing method



Source: Western and Central Pacific Fisheries Commission, Tuna Fisheries Yearbook 2013 (2013). Available from www.wcpfc.int/system/files/WCPFC_YB_2012_0.pdf.

11. The main contributions of oceans and seas to poverty eradication, economic growth and food security to Pacific economics are the following:

[5] Robert Gillett, *Fisheries in the Economies of the Pacific Island Countries and Territories* (Asian Development Bank, Mandaluyong City, Philippines, 2009). Available from www.ffa.int/system/files/Benefish%20Final%20as%20printed%20by%20ADB.pdf.

(a) Fishery exports are very important to the economies of the subregion. In about half of them, fishery exports represent more than half of all exports. Where they represent less than half the value of national exports, they are, for the most part, large in nominal terms, as in New Caledonia ($157 million), Papua New Guinea ($101 million), Fiji ($63 million) and the Marshall Islands ($37 million).

(b) Government revenue - All independent countries in the region obtain money by giving foreign fishing vessels access to fish in their offshore waters. Total access fees received in 2007 totalled $78.5 million. The Forum Fisheries Agency reported access fees of about $135 million in 2011.

(c) Employment - Useful summaries of the fisheries employment situation at the national level and intercountry comparisons are difficult to make. Most formal employment in fisheries appears to be tuna-related. Typically, 10 to 20 times as many people fish for subsistence than for commercial purposes. The large-scale tuna processing that is carried out in such economies as Fiji, the Marshall Islands, Papua New Guinea, American Samoa and Solomon Islands has a remarkable effect on fisheries-related employment.

(d) Nutrition - The extraordinarily high consumption of fish by many Pacific island economies underscores the vital contribution of fish to the food security of the subregion. This subregion has the highest proportion of economies that are heavily dependent on subsistence fishing to supply the majority of the protein needed for good nutrition.

12. The major drivers of change in Pacific island fisheries are population growth and urbanization, patterns of economic development, the status of fisheries resources and developments in other oceans, climate change and limits to domestic fishery production, as well as fuel costs, technology and innovation. It is clear that climate change stands to have profound impacts on ocean and marine environments, such as surface temperature, acidification and sea-level rise. Given that Pacific island economies contribute little to global emissions, the best strategy option for Pacific island countries is to help Pacific fisheries build resilience to those threats.

13. The role of development partners and distant fishing nations will also continue to have a major influence. In the last few decades, China has become much more active in engaging Pacific island fisheries. It has been providing increasing amounts of money for access to the tuna resources of many Pacific island economies. In addition, it is likely that China is contributing a larger share of fisheries-related assistance to the subregion, but documentation on that assistance is not readily available. The rapid economic growth of Asian countries is putting a new type of pressure on marine resources. In normal circumstances, economics compel fishermen to switch gears or locations before the resource population nears local extinction. However, the high monetary value placed on many coral reef resources by Asian economies can encourage further exploitation even after the targeted species is too rare to sustain a viable reproductive population. The rapid increase in the monetary value of reef resources can override management policies, traditional practice and laws. The Forum Fisheries Agency (2014) stated:

> Domestic operators have also highlighted the disadvantage they face in competing against foreign vessels which benefit from government subsidies. Vessels that are heavily subsidized are able to continue fishing when it is unprofitable for other operators because subsidies lower the cost of fishing.... China in particular has expanded

operations in the Pacific in recent years and has been the only nation to deploy several hundred new vessels through subsidised boat building programs.[6]

14. For several decades, a major feature of the Pacific islands subregion was the solidarity among countries on fisheries issues, which had been viewed as a global good practice in regional cooperation. The subregion has nurtured effective processes for cooperation among countries, especially in dealing with distant-water fishing nations. To date, that has helped to maintain Pacific tuna stocks while fisheries in other areas, such as in the Atlantic and Indian oceans, have been decimated. The major subregional institutions involved with fisheries in the subregion are Forum Fisheries Agency in Honiara and the Secretariat of the Pacific Community in Noumea. Among other important organizations involved in this area are the Pacific Islands Forum Secretariat in Suva, the Parties to the Nauru Agreement in Majuro, the Secretariat of the Pacific Regional Environment Programme in Apia and the University of the South Pacific in Suva. The Western and Central Pacific Fisheries Commission is also involved in fisheries in the subregion. It is an international body that manages highly migratory fish in a large area of the Pacific and adopts resolutions that are non-binding statements, and conservation and management measures that are binding. As of early 2014, about 50 management measures were in force.

II. Opportunities to strengthen fisheries contribution to sustainable development

15. *Enhancing subregional solidarity in fisheries.* Positive prospects on the sustainable use of the subregion's tuna resources depend heavily on subregional solidarity. For various reasons, this solidarity appears to have decreased; some economies have departed from their obligations under regional agreements and the potential for collaboration among the economies in the subregion in future negotiations has lessened. To improve this situation, direction must come from a higher level than that of fisheries officials. Pacific island leaders need to reaffirm their commitment to subregional solidarity on fisheries and should require reporting on progress in achieving this commitment (as they do for the Pacific Plan).[7]

16. *Improving the management of coastal fisheries.* Only a few of the coastal fisheries in the Pacific islands are managed well. This can be attributed to, among other things, the difficultly in managing this type of fishery, problems in applying controls on small-scale fishers, increased fishing due to growing populations, the breakdown of traditional management mechanisms and the greater buying power and appetite of Asian economies for coastal fishery products. Ineffective management of coastal fisheries management is a particular concern as these fisheries currently provide most of the nutrition and employment from the fisheries sector in the Pacific islands. Governments need to establish policies that protect fisheries resources and enable the continuing flow of marine food products to coastal communities.

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[6] For more information, see Forum Fisheries Agency, "Hard times in the albacore longline fishery: a brief analysis of the current crisis in on the region's most important domestic fisheries".

[7] Endorsed by the Pacific Islands Forum in 2005, the Pacific Plan is aimed at strengthening integration and cooperation in the Pacific subregion.

17. *Improving the governance of the fisheries sector.* Poor governance of the fisheries sector in the Pacific island subregion is characterized by inefficient national fisheries institutions and, in some countries, corruption. Overcoming this problem is challenged by capacity constraints on national fisheries agencies, which are faced with increasingly complex issues compounded by being based on structures that are not conducive to transparency and stakeholder input.

18. *Greater use of the offshore tuna resources for domestic purposes.* From several perspectives, there is justification for the economies of the subregion to use more offshore fish for domestic consumption. Among them are the following: compensation for declining food resources from coastal fisheries; adaptation to climate change; and benefits to small-scale fishers. As a result of this greater use, the economies of the subregion need to push management measures that encourage industrial fishing vessels to offload at least some of their catch at Pacific island ports and to support small-scale tuna fisheries. This offloading will come at a cost, such as a reduction in some access fees, and small-scale tuna fishing will require well-managed national fish aggregating device programmes.

19. *Develop an evidence base for effective policymaking.* A key issue in effective policymaking is the availability of timely and accurate data. The System of Environmental-Economic Accounting (SEEA) Central Framework, which was adopted as an international statistical standard by the United Nations Statistical Commission at its forty-third session in 2012, is used by Pacific island countries to monitor the condition of the ocean. It could also be used to evaluate the ecosystem services provided by the ocean and the impact of human activities on the ocean.

20. *Strengthening the Vessel Day Scheme.* Parties to the Nauru Agreement have adopted and implemented the vessel day scheme (VDS), a management scheme for controlling purse seine fishing based on limiting the number of days that purse seine fishing vessels can fish in exclusive economic zones. An offshoot of the scheme is the establishment of a system of property rights that can be traded, which in turn has resulted in increasing access fees received from purse seine vessels. There have been some challenges associated with the implementation of VDS, but that is to be expected when a number of countries introduce a common and sophisticated management scheme across a vast ocean area. VDS should be supported and strengthened, but not just on the grounds that it will result in generating more purse seine access fees. A strengthened purse seine VDS sets a powerful precedent for introducing a similar scheme for longliners. In addition, the benefits from a more effective scheme would help reinvigorate subregional solidarity.

III. Oceans and the development agenda beyond 2015

21. The sustainable management of ocean resources is central to future food security, livelihood and economic growth opportunities of Pacific small island developing States. Reference to the ocean was marginal in defining the Millennium Development Goals,[8] despite its significant contribution to sustainable development. This was amplified in the report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, which emphasized that poverty cannot be ended without environmental sustainability, so the

[8] Millennium Development Goal Target 7.B has two ocean-related indicators: (1) proportion of fish stocks within safe biological limits; and (2) proportion of terrestrial and marine areas protected.

ocean and seas should not be forgotten in the advancement of a development agenda beyond 2015, particularly given the significance of oceans to small island developing States.[9]

22. The importance of ocean resources and services to small island developing States has been highlighted in the preparations for the development agenda beyond 2015. In the outcome document for the Pacific subregional preparatory process for the Third International Conference on Small Island Developing States, the Nadi Outcome Document, it is stated that a sustainable development goal on oceans is critical and necessary in the development agenda beyond 2015.[10] In the zero draft outcome document for the Third International Conference on Small Island Developing States, there are calls for establishing oceans as a thematic priority, and the need to advocate a stand-alone sustainable development goal on oceans and seas, including targets on: (a) achieving a healthy marine environment; (b) achieving healthy fish stocks; and (c) realizing the economic benefits of sustainable development of marine resources.[11]

23. As indicated in a note on ocean and seas prepared by the Open Working Group on Sustainable Development Goals, it must also be recognized that the current available statistics on oceans and seas are limited in scope, making it difficult to effectively measure current goals and targets, and that there is a clear need for improved coordination, integration and cooperation among data providers and data users.[12] The development of a meaningful sustainable development goal in the area of oceans and seas requires a parallel process of strengthening methodologies for data collection and management.

IV. Proposed areas of support from the secretariat in the sustainable management of oceans and seas

24. The Commission in its resolution 69/17 requested the Executive Secretary, in collaboration with United Nations bodies and specialized agencies, international financial institutions, other regional and subregional organizations and bilateral donors, to submit a report detailing the manner in which the secretariat could support member States in the sustainable management of oceans and seas for sustainable development and poverty eradication. The following areas are proposed for the consideration of the Commission:

(a) Support member States and work with regional fisheries organizations, such as the Secretariat of the Pacific Community, the Pacific Islands Forum Fisheries Agency and the Parties to the Nauru Agreement, and

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[9] United Nations, *A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development*. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda (New York, 2013). Available from www.post2015hlp.org/wp-content/uploads/2013/05/UN-Report.pdf.

[10] "The Nadi outcome document: accelerating integrated approach to sustainable development", Pacific SIDS Regional Preparatory Meeting, Nadi, Fiji, 10-12 July 2013. Available from www.sids2014.org/content/documents/233Pacific Outcome Chairs Revised Final Version.pdf.

[11] See www.sids2014.org/index.php?menu=1537.

[12] "Statistical note for the issue brief on oceans and seas", Open Working Group on Sustainable Development Goals, updated draft, 14 February 2014. Available from http://sustainabledevelopment.un.org/content/documents/3150stat13.pdf.

promote a continued commitment to subregional solidarity, including through engagement with leaders to ensure subregional coherence in policy approaches on the sustainable management of oceans and seas;

(b) Continue to support member States in advocating the importance of recognizing oceans and seas in the process to set sustainable development goals, and extend support in the preparation of small island developing States in the intergovernmental process for setting sustainable development goals;

(c) Support Pacific island member States in integrating planning for sustainable development, including through the process to set the National Strategy for the Development of Statistics, which would assist countries in providing an enabling framework for policymaking that balances the dimensions of sustainable development, including the management of oceans and seas;

(d) Provide support in the area of data and statistics, and particularly the identification of opportunities for the use of SEEA as a potential statistical framework for Pacific island economies to monitor the condition of the oceans, including ecosystem services and the impact of human activities.

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